



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,650	11/10/2003	Manabu Hasegawa	4296-170 US	6131

7590 11/24/2004

Diane Dunn McKay, Esq.  
Mathews, Collins, Shepherd & McKay, P.A.  
Suite 306  
100 Thanet Circle  
Princeton, NJ 08540

EXAMINER

ZUCKER, PAUL A

ART UNIT

PAPER NUMBER

1621

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/705,650

Applicant(s)

HASEGAWA ET AL.

Examiner

Paul A. Zucker

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-9 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Current Status*

1. This action is responsive to Applicants' amendment of 15 September 2004.
2. Receipt and entry of Applicants' amendment is acknowledged.
3. Claims 1-9 are pending.
4. Applicant's withdrawal of claims 1-4 is acknowledged.
5. Applicants traverse the restriction requirement on the basis that no reference discloses the product as claimed. The Examiner disagrees since Kobayashi teaches the product as claimed as indicated in the rejection under 35 USC §103 set forth below. This application contains claims 1-4 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
6. The objection to the specification set forth in paragraph 3 of the previous Office Action mailed 14 June 2004 is withdrawn in response to Applicant's amendment and remarks.
7. Claims 4-9 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (US 5,789,616 08-1998).

Instantly claimed are zinc acrylate crystals having a long axis of not less than 5  $\mu\text{m}$  and an aspect ratio in the range of 1-30 falling within the size range of 6  $\mu\text{m}$  to just under 1 mm in the longest dimension.

Art Unit: 1621

Kobayashi teaches (Column 5, line 42- column 7, line 44) formation of zinc acrylate in a variety of size distributions using a zinc acrylate/zinc stearate composition.

Kobayashi teaches screening the various product powders through a 105  $\mu\text{m}$  sieve.

Assuming a minimum particle dimension of 1  $\mu\text{m}$ , at least some of those particles (those having maximum dimensions of 1-30, see Figs. 1-6) must have an aspect ratio in the required range. Kobayashi exemplifies (Fig. 3) a sample in which 90% of the particles will pass through a 1 mm sieve. Similarly, Kobayashi exemplifies (Fig. 2) a sample that has a 60% particle diameter of not less than 6  $\mu\text{m}$ .

Kobayashi is silent with regard with regard to degree of compaction and solid disintegrating load of the zinc acrylate.

Kobayashi, however, teaches (Column 5, line 42- column 7, line 44) that the particle size distribution of the zinc acrylate obtained can be controlled by the addition of varying amounts of the anionic surfactant sodium dioctyl sulfosuccinate. Kobayashi further teaches (Abstract) that this permits easy pulverization into a fine powder (reduced dintegrating load). The Examiner assumes, in the absence of evidence to the contrary, that the powders of Kobayashi have the instantly required degree of compaction.

One of ordinary skill in the art would have been motivated by Kobayashi to adjust the particle size distribution of zinc acrylate powder in order to optimize the handling properties of the resulting zinc acrylate and produce a more cost-effective method

Art Unit: 1621

for its production. Since Kobayashi teaches the method for adjusting particle size distributions there would have been a reasonable expectation for success.

Thus the instantly claimed zinc acrylate and its compositions would have been obvious to one of ordinary skill in the art.

***Examiner's Response to Applicants' Remarks with Regard to This Rejection***

8. Applicants have present several arguments in response to this rejection. The

Examiner responds to these below:

- a. Applicants assert that Kobayashi does not disclose crystals having along axis of not less than 5  $\mu\text{m}$  and an aspect ratio in the range of 1-30 and do not provide the motivation to make the invention. The Examiner disagrees. It is Applicants' burden to demonstrate that the crystals of the invention are distinguished from those of Kobayashi and display unexpected properties.
- b. Applicants discuss the method by which Kobayashi manufactures the Zn acrylate and argue that the crystals of Zn acrylate formed by Kobayahi are liable to aggregate. Kobayashi, however, teaches (Abstract, lines 6-8) that the crystals of his invention prevent aggregation. In addition, in response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., state of aggregation) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

- c. Applicants argue that Kobayashi contains no description about aspect ratio or long axis of the crystals. The Examiner disagrees and points out that the particle sizes referred to in the figures of Kobayashi are assumed to correspond to the largest dimension of the crystals (the long axis). Normal size distributions ensure that the populations of crystals described by Kobayashi have significant numbers of crystals having the instantly required aspect ratio.
- d. Applicants again argue that Kobayashi does not disclose the degree of secondary aggregation of the crystals. The Examiner again responds that Kobayashi teaches (Abstract, lines 6-8) that aggregation is prevented by the crystals of his invention. And again, in response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., state of aggregation) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's arguments filed 15 September 2004 have been fully considered but they are not persuasive for the reasons discussed above.

Art Unit: 1621

***Conclusion***

9. Claims 1-9 are pending. Claims 4-9 are finally rejected. Claims 1-3 are held withdrawn from consideration as being drawn to a non-elected invention.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

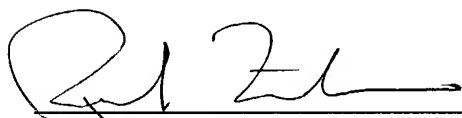
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 571-272-0650. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Paul Zucker', is written over a horizontal line.

Paul A. Zucker, Ph. D.  
Patent Examiner  
Technology Center 1600